AMENDMENT OF THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1. - 19. (Cancelled)

20. (Currently Amended) A medical device comprising:

a plurality of surface capillary fibers associated with at least a portion of a surface of the device, the surface capillary fibers comprising a polymer, and

a quantity of bioactive agent pre-loaded and in association with the surface capillary fibers,

wherein the bioactive agent elutes in a controlled way from the fibers when the surface capillary fibers are in contact with a patient's body fluids/tissue,

wherein each of the surface capillary fibers comprises at least one capillary along its outer surface running along at least a portion of the length of the surface capillary fiber, and

wherein the medical device is a percutaneous device having surface capillaries associated with a portion of the device to be placed within the patient, or is an implantable device.

21. (Original) The medical device of claim 20 wherein the bioactive agent is selected from a group consisting of an anti-microbial agent, a thrombolytic agent, an anti-platelet agent, an anti-coagulation agent, a growth factor or a combination thereof.

22. (Original) The medical device of claim 20 wherein the bioactive agent comprises a thrombolytic agent.

23. (Previously Presented) The medical device of claim 20 wherein the bioactive agent comprises tissue plasminogen activator.

24. (Original) The medical article of claim 20 wherein the bioactive agent comprises an anti-microbial agent.

25. (Previously Presented) The medical device of claim 20 wherein each of the surface capillary fibers has a surface area of at least about a factor of 1.5 greater than a corresponding circular fiber with an equivalent diameter.

26. (Original) The medical device of claim 20 wherein the device is configured for placement within a blood vessel without blocking flow through the vessel.

27. (Previously Presented) The medical device of claim 20 wherein the device comprises a catheter and additional surface capillary fibers, wherein the additional surface capillary fibers are associated with the inner surface of the catheter.

28-46. (Cancelled)

47. (Currently Amended) A method for delivering a bioactive agent using a medical device, the method comprising

contacting a patient's body fluids/tissues with a plurality of surface capillary fibers associated with at least a portion of a surface of the device, wherein the surface capillary fibers are pre-loaded and in association with a bioactive agent that elutes in a controlled way from the fibers upon contacting the fluids/tissues,

wherein each of the surface capillary fibers comprises at least one capillary along its outer surface running along at least a portion of the length of the surface capillary fiber,

and

wherein the medical device is a percutaneous device having surface capillaries associated with a portion of the device to be placed within the patient, or is an implantable device.

48. (Withdrawn, Previously Presented) The method of claim 47 wherein contacting of the patient's fluids/tissue comprises implanting a prosthetic device comprising the surface capillary fibers.

49. (Previously Presented) The method of claim 47 wherein contacting of the patient's fluids/tissue comprises delivery of a catheter associated with the surface capillary fibers.

50. (Previously Presented) The method of claim 49 wherein the catheter comprises a lumen and the surface capillary fibers are associated with the lumen of the catheter.

51. (Withdrawn, Previously Presented) The method of claim 49 wherein the surface capillary fibers are associated with a medical device that is delivered through the catheter.

52. (Original) The method of claim 47 wherein the bioactive agent is selected from the group consisting of a thrombolytic agent, an anti-platelet agent, an anti-coagulation agent, a growth factor or a combination thereof.

53. (Currently Amended) [[The]] A medical device ~~of claim 20~~ comprising:

a plurality of surface capillary fibers associated with at least a portion of a surface of the device, the surface capillary fibers comprising a polymer, and

a quantity of bioactive agent pre-loaded and in association with the surface capillary fibers,

wherein the bioactive agent elutes in a controlled way from the fibers when the surface capillary fibers are in contact with a patient's body fluids/tissue,

wherein each of the surface capillary fibers comprises at least one capillary along its outer surface running along at least a portion of the length of the surface capillary fiber,

wherein the medical device is a percutaneous device or is an implantable device, and

wherein the bioactive agent is associated with a controlled release agent.

54. (Previously Presented) The medical device of claim 20 wherein the plurality of surface capillary fibers are associated with at least a portion of a surface of the device with an adhesive, mechanical binding, heat bonding, or chemical bonding.

55. (Currently Amended) The ~~medical device~~ method of claim 47 wherein the plurality of surface capillary fibers are associated with at least a portion of a surface of the device with an adhesive, mechanical binding, heat bonding, or chemical bonding.

56. (Previously Presented) The medical device of claim 20 wherein the bioactive agent is pre-loaded into the capillaries of the surface capillary fibers with a control release agent.

57. (Currently Amended) [[The]] A medical device ~~of claim 20 wherein the surface capillary fibers comprises a polymer and the bioactive agent is~~, comprising:

a plurality of surface capillary fibers associated with at least a portion of a surface of the device, the surface capillary fibers comprising a polymer, and

a quantity of bioactive agent pre-loaded into the polymer of the surface capillary fibers,

wherein the bioactive agent elutes in a controlled way from the fibers when the surface capillary fibers are in contact with a patient's body fluids/tissue,

wherein each of the surface capillary fibers comprises at least one capillary along its outer surface running along at least a portion of the length of the surface capillary fiber, and

wherein the medical device is a percutaneous device or an implantable device.